

AMENDED CLAIMS

[received by the International Office on February 10
2005 (02.10.05), original claims 16-18 deleted]

5

1. A method for producing perovskite particles of the formula ABO_3 , wherein A is a metal of lower valency or a mixture of metals of lower valency and B is a metal of high valency or a mixture of metals of higher valency,
10 characterized by the steps
 - (a) dissolution of the first metal or of the mixture of metals A in an anhydrous solvent or solvent mixture and
 - (b) reaction of the solution from (a) with an alkoxide of the second metal or of the mixture of metals B of the formula $B(OR)_x$ and/or $B(OR)_{x-2}$, wherein x is the valency of the metal B and R is a linear or branched
20 alkyl radical having 1 to 30 carbon atoms.
2. The method as claimed in any of the preceding claims, wherein the metal A is selected from the group consisting of alkali metals, alkaline earth metals and transition elements.
25
3. The method as claimed in claim 2, wherein the metal A is selected from the group consisting of the monovalent or divalent metals.
30
4. The method as claimed in claim 3, wherein the metal A is selected from the group consisting of strontium and barium.
- 35 5. The method as claimed in any of the preceding claims, wherein the metal B is selected from the group consisting of transition elements and metals of groups III and IV.

6. The method as claimed in any of the preceding claims, wherein the metal B is selected from the group consisting of the tetravalent or pentavalent metals.
- 5
7. The method as claimed in claim 6, wherein the metal B is titanium.
- 10 8. The method as claimed in any of the preceding claims, wherein the solvent is selected from alcohols, ketones, aldehydes and mixtures thereof.
9. The method as claimed in claim 8, wherein an alcohol or a mixture of an alcohol with a ketone and/or aldehyde is used as the solvent.
- 15
10. The method as claimed in any of the preceding claims, wherein the alcohol is sterically stabilizing alcohol.
- 20
11. The method as claimed in claim 10, wherein the alcohol is benzyl alcohol.
- 25 12. The method as claimed in any of the preceding claims, wherein the metal alkoxide in step (b) is titanium isopropoxide.
13. The method as claimed in any of the preceding 30 claims, wherein step (b) is carried out at a temperature of from 190 to 220°C.
- 35 14. The method as claimed in any of the preceding claims, wherein, in step (b), a 10-100-fold excess of the solvent is present.
15. The method as claimed in any of the preceding claims, wherein the perovskite particles obtained

after step (b) have a mean size of 5-10 nm.